

alkylene glycol ethers in at least one of the first and second components in an amount ranging from 0.1-20 wt % based on the entire composition.

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cont.

22. (New) The hair bleach or dye composition according to Claim 15, which further comprises at least two nonionic surfactants of different HLB values of which one is a hydrophilic nonionic surfactant (K) having an HLB value of 10-20 and another is an oleophilic nonionic surfactant (L) having an HLB value of 1-10, the surfactants incorporated in the first aqueous component or the second aqueous component or both of the components.

23. (New) The hair bleach or dye composition according to Claim 22, wherein the hydrophilic nonionic surfactant is a polyoxyethylene alkyl ether or an alkyl glycoside.

24. (New) The hair bleach or dye composition according to Claim 22, wherein the oleophilic nonionic surfactant is a polyoxyethylene alkyl ether having an HLB of 1-10, a polyoxyethylene polypropylene alkyl ether, an alkyl glyceryl ether, alkyl glyceryl pentaerythritol ether, an alkyl diglyceryl ether or an alkyl triglyceryl ether, all having an HLB value of 1-10.

25. (New) A method of dyeing or bleaching the hair, comprising:
applying, while mixing, the first and second components of Claim 5 to the hair.

26. (New) A method of dyeing or bleaching the hair, comprising:
applying, while mixing, the first and second components of Claim 15 to the hair.--

REMARKS

Claims 1-4 have been canceled. New Claims 5-26 are active in the case.

Reconsideration is respectfully requested.

The present invention relates to a hair bleach or dye composition that provides less of an offensive odor, exhibits excellent hair bleaching power, hair dyeing power and an excellent hair-conditioning effect.

Claim Amendments

Claims 1 and 2 have been canceled in favor of new Claims 5 and 12. It is believed that the new claims clarify the hair bleaching and dyeing composition of the invention by specifying that the composition is an at least two component formulation of which the first component is an aqueous alkali formulation while the second component is an oxidizing component that contains an oxidizing agent. Each of the organic solvent(s) (A) and (B) as one or more of each type are added to at least one of the first and second components. Support for this construction of the claims is readily apparent from the several examples in the text.

New Claims 6-11 (13-18) are supported in the specification at page 9, lines 15-18; page 10, lines 7-17; the paragraph bridging pages 13-14; page 16, lines 8-12; page 19, lines 2-10 and page 19, lines 11-23. New Claims 19 and 20 are supported by Claims 5 and 12 and by the disclosure, for instance, at pages 22 and 23. New Claims 12-14 (22-24) are supported by page 21, line 12 to page 22, line 6. Entry of the new claims is respectfully requested.

Claim Rejection, 35 USC 112

The issue raised under 35 USC 112 is believed obviated by the presentation of new Claims 5 and 12 whereby the basic two component nature of the formulation is stated. Further, the relationship of the organic solvent components (A) and (B) to the overall

composition is stated, as well as the amount of water in the overall composition and its pH when the first and second components are mixed.

Invention

The hair treatment formulation of the invention is an oxidation type composition based on the two separate components of an aqueous alkali agent and a second component that contains an oxidizing agent. To the components are added a component (A) that is an organic solvent having a partition coefficient (octanol-water) (log P) at 25° C of 0.3-6 and a molecular weight of 200 or less, in at least one of the first and second components such that the total amount of component (A) ranges from 1-70 wt % of the entire bleach composition, and a component (B) that is an organic solvent having a partition coefficient (octanol-water) (log P) at 25° C of less than 0.3, in at least one of the first and second components such that the total amount of component (B) ranges from 0-8 wt % of the entire bleach composition, but less than the amount of component (A), and a component (E) water in an amount of 20-55 wt % of the entire bleach composition. When the alkali and oxidizing agent containing components are mixed upon application the hair, the resulting mixture has a pH of 7.5-12.

Prior Art Rejection

Claims 1-4 stand rejected based on 35 USC 103(a) over Bugat, U.S. Patent 4,470,826. This ground of rejection is respectfully traversed.

The Bugat patent discloses a method of dyeing keratin fibers (hair) that uses a formulation containing nitro-p-phenylene diamine derivatives that provide an improvement on conventional nitro-phenylenediamine dyes whose harmlessness as dyes for the hair has

been questioned. As such the patent discloses a formulation containing the dye whose formula is shown at column 1, line 45. Note that the dye is formulated as a one part or single composition with a variety of ingredients that include one or more organic solvents, an alkali agent, a surfactant that can be a nonionic, cationic, anionic or amphoteric type, as well as other ingredients. The patent also discloses that the dye formulation can be used in conjunction with a step of bleaching the hair. On the other hand, the embodiments of the present invention as claimed are fundamentally different in that the composition is based on two separate components or packs which are a first component that is an aqueous alkali material (C) and a second component or pack which contains an oxidizer (D), commonly hydrogen peroxide. Other essential components which can be found in either or both of the first and second components are the two types of organic solvent as described in the claims identified as components (A) and (B). Of course, water is present. It must also be observed that all percentage quantities given for the various ingredients of the present composition are presented in terms of the weight of the entire composition, not just one of the components of the composition. Similarly, the pH range recited in the claims is not a pH in terms of the first or second component, but the pH of the aqueous mixture which results from the mixing of the two (or three) components at the time of application of the mixture to the hair. Clearly, there is a significant degree of interdependence of all of the individual materials that make-up a given hair treatment formulation no matter which of the first or second component they are found in, whereas the patent, which does not disclose a hair treatment formulation formed of two (or possibly three) separate components, only discloses amounts of ingredients that are they are found in a single formulation.

Applicant at this point notes the Examiner's comment in the second paragraph of page 3 of the Office Action that seems to imply a relationship or dependence of an oxidizer material with the dye composition described in the patent. However, no such relationship exists between an oxidizing agent and the dye composition disclosed in the patent. All that the patent teaches at column 5, lines 42-50 concerning an oxidizer is that at the time of use of the dye composition of the patent on a subject, the hair of the subject is separately treated with an oxidizer (Note that the many composition examples of the patent show a first bleaching treatment of the hair followed by treatment with a dye composition embodiment.), or an oxidizing agent such as aqueous hydrogen peroxide is mixed in with the dye composition when it is applied to the hair. In none of the modes of use of the oxidizing agent is any interdependence taught with the dye composition of the patent.

As to the matter of the organic solvents disclosed in column 3, lines 19-32 of the patent, there is no teaching of the solvents in terms of different solvent classifications contrary to the teachings and claims of the present case where a clear line of distinction is drawn between an organic solvent having a partition coefficient (octanol-water) ($\log P$) at 25° C of 0.3-6 (solvent component (A)) and an organic solvent having a partition coefficient (octanol-water) ($\log P$) at 25° C of less than 0.3 (solvent component (B)). In this regard it should be noted that most, if not all, of the solvents disclosed in the patent appear to fall within the scope of solvent component (B) of the present claims. Moreover, the choice of solvent in the patent is solely in terms of aiding in the solubilization of materials requiring such in the composition, whereas in the present invention the choice of solvent (see page 3 of the specification) is to incorporate a specific amount of hydrophobic organic solvent in a given formulation so as to shift the hydrophilic/hydrophobic balance of the hair dye to the

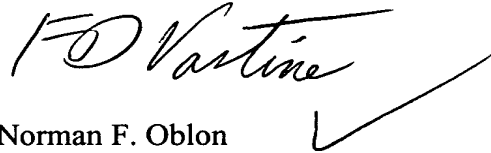
hydrophobic side. This allows a hydrophilic alkali agent and a hydrophilic oxidizing agent such as hydrogen peroxide to be incorporated into the hair in larger amounts which enhances the bleaching effect thereby enabling dyeing of the hair to brighter color tones and arbitrary blending of perfume into the composition can be done to mask the offensive odor of ammonia employed as an alkali agent.

Still another point of distinction of the invention over Bugat is that the first aqueous component and/or the second aqueous component contains at least two species of nonionic surfactants, one of which is hydrophilic while the other is oleophilic as set forth in the dependent claims. On the other hand, Bugat nowhere shows or suggest such a limitation, especially for the aqueous oxidant, if such is employed. Thus, the Bugat patent clearly does not teach or suggest the two (or more) component composition of the invention and withdrawal of the rejection is respectfully requested.

It is now believed that the application is in proper condition for allowance. Early notice to this effect is earnestly solicited.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read "F.O. Oblon", with a large checkmark to its right.

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MARKED-UP COPY OF AMENDMENT

IN THE CLAIMS

Please cancel Claims 1-4 and add the following new claims.

Claims 5-26. (New)